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REMARKS

Rejections Under 35 U.S.C. § 102(a) and 102(e) Over Sherman (U.S. Patent No. 6,713,495), Vijayaraghavan et al. (U.S. Patent Application No. 2003/0212274), Kamiyama et al. (U.S. Patent Application No. 2003/0181247) and Gustavsson et al. (U.S. Patent No. 6,207,188)

Claims 1-15 have been rejected as anticipated by Sherman, Vijayaraghavan et al., Kamiyama et al., and Gustavsson et al. Applicants respectfully traverse the rejections for the following reasons.

Sherman

Sherman discloses a magnesium salt of omeprazole. In some portions of the Sherman disclosure, Sherman states that magnesium omeprazole can be prepared with crystallinity under 67%, or under 25%. Example 3 of Sherman states that powder was examined which had crystallinity of under 25%. There is no X-ray diffraction data presented in Sherman.

Applicants claim amorphous esomeprazole salts, and various aspects of such materials. Sherman does not mention or disclose or otherwise relate to salts of esomeprazole of any kind, either amorphous or otherwise. Thus, there is clearly no anticipation of any of applicants' claims by Sherman.

Vijayaraghavan et al.

Vijayaraghavan et al. discloses salts of amorphous omeprazole. The polymorphic characters of these salts are exemplified by presentation of X-ray diffraction data of the magnesium salt of omeprazole, showing an amorphous form of that material (Fig. 2).

Applicants claim amorphous esomeprazole salts, and various aspects of such materials. Vijayaraghavan et al. does not mention or disclose or otherwise relate to salts of esomprazole of any kind, either amorphous or otherwise. Thus, there is clearly no anticipation of any of applicants' claims by Vijayaragahan et al.

Kamiyama et al.

Kamiyama et al. discloses salts of a particular benzimidazole compound, namely (R)-2-[[[3-methyl-4-(2,2,2-trifluoroethoxy)-2-pyridinyl-]methyl]sulfinyl]-1H-benzimidazole. This compound is neither omeprazole nor esomeprazole, as is apparent from inspection of the

PAGE 2/7 * RCVD AT 6/22/2007 10:58:56 AM [Eastern Daylight Time] * SVR:USPTO-EFXRF-1/18 * DNIS:2738300 * CSID:609 514 9779 * DURATION (mm-ss):02-54

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JUN 22 2007

chemical names of the Kamiyama et al. compound and esomeprazole ((S)-5-methoxy-2-[[(4-methoxy-3,5-dimethyl-2-pyridinyl) methyl]sulfinyl]-1H-benzimidazole).

Applicants claim amorphous esomeprazole salts, and various aspects of such materials. Kamiyama et al. does not mention or disclose or otherwise relate to salts of esomeprazole of any kind, either amorphous or otherwise. Thus, there is clearly no anticipation of any of applicants' claims by Kamiyama et al.

Gustavsson et al.

Gustavsson et al. discloses the sodium salt of omeprazole. In particular, Gustavsson et al. discloses a particular crystalline form B of sodium omeprazole. There does not appear to be any specific disclosure of an amorphous form in Gustavsson et al.

Applicants claim amorphous esomeprazole salts, and various aspects of such materials. Gustavsson et al. does not mention or disclose or otherwise relate to salts of esomeprazole of any kind, either amorphous or otherwise. Thus, there is clearly no anticipation of any of applicants' claims by Gustavsson et al.

Summary of Anticipation

In summary, while Sherman, Vijayaraghavan et al. and Gustavsson et al. discuss omeprazole salts, with varying degrees of disclosure or suggestion of an amorphous form, none of these references mentions, or alludes to, esomeprazole at all. The fourth reference, Kamiyama et al., appears to have nothing at all to do with omeprazole or esomeprazole. The Examiner would appear to appreciate that fact, as nowhere in the section on anticipation (Office Action pages 2-3) does the Examiner assert that esomeprazole is disclosed in the cited references much less an amorphous forum thereof. There is no anticipation of applicants' claimed subject matter, and applicants respectfully request reconsideration and withdrawal of the rejection on these grounds.

The Examiner cites to In re Schaumann, 572 F.2d 312 (CCPA 1978) and In re Petering, 301 F.2d 676 (CCPA 1962) in support of the anticipation rejection. These citations are misplaced, for the following reasons. Esomeprazole is simply not described in the cited references within the meaning of 35 U.S.C. § 102. As recognized in In re Williams, 171 F.2d 319 (CCPA 1948) and reaffirmed by the court in In re May, 574 F.2d 1082 (CCPA 1978), the

PAGE 3/7 * RCVD AT 6/22/2007 10:58:56 AM [Eastern Daylight Time] * SVR:USPTO-EFXRF-1/18 * DNIS:2738300 * CSID:609 514 9779 * DURATION (mm-ss):02-54

novelty of an optical isomer is not negated by the prior art disclosure of its racemate. Thus, the disclosure of the cited references of a racemate containing particular isomers does not negate the novelty of the presently claimed compound. The Examiner's reliance on In re Schaumann and In re Petering in support of the position that the claimed compound lacks novelty in view of the disclosure in the cited references, is misplaced. The court in In re May recognized that claims directed to optically pure isomers present issues critically different from those presented by the facts in In re Schaumann and In re Petering. Such is evident from the aforementioned specific holding in In re May, that novelty of an optically pure isomer is not negated by the prior art disclosure of its racemate.

Moreover, racemates and their pure enantiomers do not necessarily behave the same way under similar precipitation or crystallization conditions. They tend have different levels of hydration or solvation. As far as solid state characteristics is concerned, racemates and their pure enantiomers behave differently. For example, the drug ofloxacin is marketed as an anhydrate, while its S-enantiomer – levofloxacin – is marketed as a hemihydrate. In fact, ofloxacin has not been reported as any hydrate while several hydrates of levofloxacin have been reported. Any information available on the racemate is not predictive of the solid state characteristics of the pure enantiomers. Thus, the Applicants submit that the mere fact that omeprazole magnesium is known in the amorphous form can not be considered to anticipate the amorphous form of esomeprazole magnesium.

Applicants therefore respectfully submit that the claimed invention is not anticipated by the cited references.

Rejection Under 35 U.S.C. § 103(a) Over Sherman (U.S. Patent No. 6,713,495), Vijayaraghavan et al. (U.S. Patent Application No. 2003/0212274), Kamiyama et al. (U.S. Patent Application No. 2003/0181247) and Gustavsson et al. (U.S. Patent No. 6,207,188) in view of Bohlin et al. (U.S. Patent No. 6,162,816) and Broeckx et al. (U.S. Patent Application No. 2004/0209918)

Claims 1-15 have been rejected as obvious over Sherman, Vijayaraghavan et al., Kamiyama et al., and Gustavsson et al. in view of Bohlin et al. and Broeckx et al. Applicants respectfully traverse the rejection for the following reasons.

PAGE 4/7 * RCVD AT 6/22/2007 10:58:56 AM [Eastern Daylight Time] * SVR:USPTO-EFXRF-1/18 * DNIS:2738300 * CSID:609 514 9779 * DURATION (mm-ss):02-54

RLL-297US

As discussed above in relation to the 35 U.S.C. § 102(a) and 102(e) rejections, none of the cited references Sherman, Vijayaraghavan et al., Kamiyama et al., or Gustavsson et al. disclose or allude to esomeprazole.

Bohlin et al. discloses crystalline forms of esomeprazole in the neutral, that is, not the salt, form. This material may also be referred to as esomeprazole base. Moreover, Bohlin et al., although mentioning an amorphous form of esomeprazole base, does not express as preferred such an amorphous esomeprazole base.

Broeckx et al. discloses processes for preparing particular benzimidazole-type compounds, and does not disclose the particular preparation of esomeprazole. Thus, there is no disclosure of an amorphous esomeprazole salt.

The Examiner apparently seeks to formulate a prima facie case of obviousness involving Bohlin et al. or Broeckx et al. and each of the references Sherman, Vijayaraghavan et al., Kamiyama et al. and Gustavsson et al. The last four references lack any disclosure of esomeprazole, and Bohlin et al. provides a neutral, solid state form of esomeprazole. There is no apparent motivation to combine the disclosure of Bohlin et al. with any of the disclosures of Sherman, Vijayaraghavan et al., Kamiyama et al. or Gustavsson et al. to arrive at applicants' presently claimed amorphous salts of esomeprazole. The Examiner has not identified any such motivation, merely stating "Bohlin et al. and Broeckx et al. teach that omeprazole is a racemic mixture that consists of two single enantiomers. Hence, the claimed isomer as well as its relative selectivity of properties *vis-à-vis* the racemate are suggested by the reference." (Office Action, page 4, emphasis added).

Applicants object to the proposition put forth of "hence, the claimed isomer ... [is] suggested by the reference." The Examiner appears to miss the point that what is claimed is the amorphous form of a salt of esomeprazole. Whether or not an isomer is suggested by a reference disclosing a racemate is not the issue before the Examiner.

The departure of subject matter from what is disclosed or suggested in the cited references is far more significant than what has been set forth in the Office Action. Applicants respectfully request that a full discussion of the Examiner's view on motivation to combine the cited references be set to paper in the next Office Action.

PAGE 5/7 * RCVD AT 6/22/2007 10:58:56 AM [Eastern Daylight Time] * SVR:USPTO-EFXRF-1/18 * DNIS:2738300 * CSID:609 514 9779 * DURATION (mm-ss):02-54

RLL-297US

Applicants respectfully submit that the claimed subject matter is not obvious in light of the cited references.

PAGE 6/7 * RCVD AT 6/22/2007 10:58:56 AM [Eastern Daylight Time] * SVR:USPTO-EFXRF-1/18 * DNIS:2738300 * CSID:609 514 9779 * DURATION (mm-ss):02-54

RLL-297US

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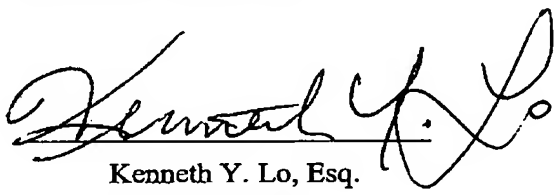
CONCLUSION

Applicants submit that all outstanding rejections have been overcome or mooted, and a Notice of Allowance is respectfully requested at this time.

Authorization is hereby given to charge any fees deemed to be due in connection with this Amendment and Response to Office Action to Deposit Account No. 50-0912.

Respectfully submitted,

By: 

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PAGE 7/7 * RCVD AT 6/22/2007 10:58:56 AM [Eastern Daylight Time] * SVR:USPTO-EFXRF-1/18 * DNIS:2738300 * CSID:609 514 9779 * DURATION (mm-ss):02-54